

NHS claims 200% of Global Telehealth Users



InMedica has predicted that the global market for telehealth will reach 1.8 million patients in 2017. Yet the UK's NHS 3 million lives campaign is aiming to hit twice that number.

Are the two talking the same language and is the NHS on course to achieve its target? Recent reports on telehealth deployments, both in the US and UK suggest we need to look at working culture rather than technology if we are to have any hope of getting close to either of those numbers.

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If you've been following the UK health pronouncements on telehealth, you'll be aware of the policy of recruiting 3 million patients to become telehealth users by 2017. And if you've been following the industry analysts you've probably spotted the [recent report by InMedica](#), suggesting that by 2017 there will be 1.8 million patients using telehealth worldwide. In other words, the UK's program will be responsible for around 200% of telehealth patients. I know we did well at the Olympics, but that's setting the bar rather high.

It suggests that either our ministers in the Department of Health are doing [a Chris Huhne](#), or else the analysts are being uncharacteristically understated about the future.

You always need to be careful when politicians quote large numbers. Most aren't particularly numerate, having come from non-scientific backgrounds, so whenever they see or hear the word "million" they tend to think it's big and important. Once they believe it is big and important, they stop thinking about what it means or its context, because to their innumerate level of understanding big and important doesn't need any qualification – it's just big and important. As a result they tend not to ask what the number actually means or whether it might be achievable.

Analysts also know that the word "million" is big and important, because it persuades people to buy their reports. Companies buy these reports in order to justify otherwise dubious business plans when they're seeking new investment. And when that investment materialises, the analysts see that as justification for their predictions and increase the numbers in next year's report. Until at some point belief turns into reality, the bubble bursts, or everyone agrees on a new name for the technology and starts again. However, in this case, the discrepancy between the two sets of million-mongers is sufficiently large to justify some further investigation.

Let's start with the three million. That's the headline of the [3 million lives](#) initiative. It was announced in January 2012 by Paul Burstow – Minister of State for Care Services. Following on from the positive results that had recently been reported from the Whole System Demonstrator (WSD) programme, which "proved" that telehealth could deliver a 15% reduction in bed days and a 8% reduction in tariff costs, the Department of Health, along with four industry groups issued a [concordat](#) which stated an aim of deploying telecare to three million patients by 2017.

The partnership between the Department of Health, the telehealth and telecare industries is a commitment to "move beyond the current situation where a few thousand people are benefitting from telehealth to one where millions of lives can be improved with the help of these technology assisted services, and contribute to the mainstreaming of telecare". It acknowledges that it is "an ambitious plan to bring the benefits of telehealth and telecare technologies to three million people with long term conditions and social care needs over the next five years". This means getting telehealth to around 5% of the UK population by 2017.

You can't knock that vision. Telehealth has been blighted by the difficulty of moving to scale. In the light of that three million goal, the WSD trial looks insignificant at just 6,000 patients – we need around five hundred more of those to hit the three million. We shouldn't forget that the WSD remains one of the

largest organised trials anywhere in the world. The next step along the way is the DALLAS program, which has the aim of enrolling 50,000 patients. It plans to achieve that by shifting the balance of funding from multiple, academic-led trials to placing real products into the field (Deploy Assisted Living, Limit Academic Spending). There are some very sensible reasons for doing this, not least of which is to understand what to do with the data that is produced by all of these telehealth and telecare systems. Three million connected patients will generate a lot of data. Not only does that need to be analysed to turn it into something useful, but systems also need to be put in place that are capable of managing ten million or more remote devices (most patients will have more than one monitoring sensor). Right now, the industry has almost no experience about doing this at scale.

It seems that the 3 million lives initiative is making progress. In November 2012 Jeremy Hunt launched the latest NHS mandate alongside which he [claimed that seven pathfinders](#) – NHS and local authority associations, were about to agree contracts with industry suppliers that would each allow 100,000 patients to benefit from telehealth during the course of the coming year, making the UK a global leader.

They're brave words, but they're already beginning to sound a little hollow. [Telecare Aware](#) has been [charting the progress of the initiative](#) and it's worth reading it. Like all of us, they want it to be a success, but to achieve that needs more than optimistic words. In an excellent article earlier this month on the [pathfinders losing their way](#), Lis Evenstad of [eHealth Insider](#) interviewed Chris Wright – the programme manager of 3millionlives. He admitted that the target of 10,000 patients for each pathfinder was "more of an estimate", and that they were only looking for a commitment, such as a contract signed, rather than actual deployments. Which makes the prospect of three million users in 2017 look rather remote.

Which brings me back to the InMedica figures. They're suggesting that by 2017 the **global** number of telehealth users will be 1.8 million, quite a lot shy of the three million that are being predicted for the UK. One reason for this headline discrepancy could be differing definitions of what is meant by Telehealth. InMedica have made clear where their 1.8 million figure comes from. They're tracking Congestive Heart Failure (CHF), Chronic Obstructive Pulmonary Disorder (COPD), diabetes, hypertension and mental health conditions. They estimate that in the US today, telehealth solutions are being used by 140,000 post-acute patients who have been discharged from hospital and a further 80,000 signed up to ambulatory monitoring. They don't expect that mix to change dramatically, although diabetes and COPD will account for growing percentages.

The 3millionlives website [defines telehealth](#) as "services that use various point-of-care technologies to monitor a patient's physiological status and health conditions. When combined with personalised health education within a chronic disease management programme, it can significantly improve an individual's health and quality of life. Typically, it involves electronic sensors or equipment that monitors vital health signs remotely from home or while on the move. Readings are automatically transmitted to an appropriately trained person who can monitor the health vital signs and make decisions about potential interventions in real time, without the patient needing to attend a clinic".

That's not that different from InMedica's criteria. On the surface it doesn't seem to include telecare. The UK can make a good claim to be the global leader in telecare, if only because of the number of fall alarms which have been deployed.

I was told a few years ago that over 1 million people in the UK have been provided with them, accounting for around 60% of the global total. That's down to some excellent coordination between local authorities and suppliers. Sadly only around 30% are thought to be worn. By 2017 there's a fair chance that the total number that will have been supplied could be 1.5 million, which could give us half of the 3millionlives total. After all, a recent report reckons the global market for wearable devices for seniors will reach [37 million by 2017](#). But it's not clear whether 3million lives does include these is its total. That may change...

Otherwise, where do the patients come from? There's the excellent [Digital First initiative](#), which I sure could be redefined to provide some of the extra numbers, but it's not really telehealth. And the lack of updates to their website makes me worry that it's another good idea that is being buried.

There is no doubt that if the demand is there, device manufacturers can fulfil it. ABI research recently [reported strong growth in wearable mHealth devices](#) (which they see predominantly as pedometers and heart rate belts), claiming that shipments of devices grew to 30 million last year, and is likely to exceed 150 million by 2017. However, that assumes that 150 million people will be interested enough to use them, which is the common limiting factor that is likely to plague the 3 million lives initiative.

The point is that counting devices, or the ability of the industry to manufacture them isn't very useful. The real barrier is not the technology – we have that. It's not even getting the data. It's how we integrate both of them into medial pathways. [Theo Ahadome](#), a senior analyst at InMedica summed it up recently "The issue of whether telehealth works to drive clinical and economic results has become a 'yes' or 'no' question for healthcare providers. In fact, the real answer is 'it depends.' It depends on how the telehealth system, and services are set up and how the behaviour of patient and other stakeholders can be changed in this system."

They are wide words. To see why in practice, we need to turn to two recent reports on real deployments. The first is The [Commonwealth Fund's Case Studies in Telehealth Adoption](#). This looks at three US deployments and points out some early lessons, key of which are:

- **Telehealth-enabled programs disrupt the status quo.** Telehealth requires a different mind-set to achieve desired changes in practice and targeted outcomes. An organization's ability to promote a culture of openness, preparedness, and adaptiveness to technology-led change will increase the likelihood that the implementation will succeed.
- **Program development involves a multidisciplinary, team-based approach.** Telehealth requires the integration of technical, clinical, and business processes into a standard program. Telehealth programs tend to specialize in providing the technology expertise, wraparound support and training, and equipment installation, while home care and other care partners provide the clinical expertise for successfully designing and implementing the technology for use in care.
- **Technology implementation is a social process.** Technology-enabled solutions in health care are very much social in nature. Establishing leadership support and identifying program champions are the core foundations for a successful program, while patient activation and engagement have been key to successful program outcomes.

None of these are just about signing contracts. They are all about changing culture. If you need that spelt out, then have a look at the [Project Evaluation Report](#) of the Yorkshire & the Humber Telehealth Hub, which should be required reading for anyone involved in telehealth. This provides the experience of their work to set up a telehealth hub. I'm only going to list some of the key points they raise. They're the same ones that come up again and again, but particularly cogently put in this report:

- Organisations seemed reluctant to try the services offered, even when they were free of charge or heavily subsidised.
- Telehealth was far down the list of priorities of newly formed CCGs.
- Barely anyone said yes quickly.
- Currently there is no driving imperative to make a health economy implement at scale this technology even though the potential efficiency benefits are extensive and the benefit to patient experience and outcomes positive. Current system levers incentivise Trusts to keep admitting patients, and do not incentivise commissioners to commission services to prevent admissions.
- Time taken to convert interest into contractual commitment, and then from contract to deployment, was more time consuming than anticipated.
- The service was offered to all GPs, but only three chose to take it up.
- One of the partners commented that "When I look at the aims expressed, what strikes me is the "tele" not the condition".

I was struck by their use of two phrases – the "sceptical GP" and the need to develop a model across the whole organisation, not just the "hobbyist activities of a few". Those are my emphases, but I am sure they will be familiar to many. The fact that these two descriptions still haunt almost every report indicates just how big a challenge reaching the three million will be.

One of their conclusions should be the banner for making 3 million lives happen – "Do not focus on the technology; it is change management that drives adoption of best practice care pathways and methods; adequate technology solutions are necessary but not sufficient."

The title of this piece is deliberately glib, but there's a point behind it. Trying to target numbers is not helpful. We could deploy 3 million devices quite easily, but most would sit gathering dust or be hidden in the back of drawers. The concordat recognises that the aim should be about achieving a better quality of life for patients. That's not about procurement managers writing contracts for devices, it's about changing the way we incorporate data into our ways of working. The two reports above confirm that, based on experience with real deployments from people who actively want telehealth to happen, which is not the norm.

The pathfinders need to understand what they're trying to achieve and the processes that must be changed to make telehealth work; only then does it make sense to write the supply contracts. We now have evidence not just of telehealth's efficacy, but also the way to implement it. It's vital that we take note of that, rather than believing that just because it's big it will automatically happen.

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